

Spa Operator's Guide

Includes
**Installation, Operation, Maintenance and
Safety Information**



NOTE

Read this guide thoroughly. It contains important safety and maintenance information. Please review it and keep it for future reference.

OWNER'S INFORMATION

DEALER IMPRINT AREA

Installer

Company: _____

Address: _____

Phone: _____

Warranty Submitted: _____

**PLEASE ASK YOUR DEALER ABOUT REGISTERING
YOUR WARRANTY**

Model: _____

Serial Number: _____

Equipment Pack: _____

Color: _____

Date of Delivery: _____

We appreciate your business and our sincere desire is that you receive years of pleasure and therapy from your spa. Please call your local spa dealer if you have any questions or problems.

Spa Operator's Guide

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This Operator's Guide utilizes the following symbols to emphasize particular information.



The Safety Alert Symbol indicates a potential hazard



WARNING



CAUTION



NOTE

Dear Spa Owner:

Congratulations on your purchase of a new spa. You now possess the ultimate passport to tranquility - a daily vacation at home, ready and waiting for you in your own backyard!

We want you to enjoy your spa. Many hours of research have gone into the design of your spa, to ensure the ultimate in hydrotherapy and relaxation. Only the highest quality components have been used, to ensure years of trouble-free operation. Your comfort and enjoyment have been designed into your spa from the start.

Please take the time to read through this Operator's Guide. In it, you will find guidelines on caring for your spa, a complete explanation of the controls, safety instructions, a trouble-shooting section, and lots more.

Once again, we welcome you to the family of spa owners. Your thoughts and ideas are important and we encourage you to share them with us. Please write to us at the address below, or send us an e-mail with your comments.

Thank you for your business and your confidence in our company. We look forward to serving you!

IMPORTANT SAFETY INSTRUCTIONS

WARNING!

When installing and using this electrical equipment, basic safety precautions should be followed, including the following:

- 1) READ AND FOLLOW ALL INSTRUCTIONS.
- 2) **WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times. Keep spa cover locked when not in use.
- 3) Wiring should be done by a qualified electrician, according to the directions listed under “Set-up And Delivery Guidelines” and “Wiring Diagram”. A GFCI must be used.
- 4) **DANGER:** Risk of injury. The suction fittings in this spa are sized to match the specific water flow created by the pump. Never operate the spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
- 5) **DANGER:** Risk of electrical shock. Install at least 5 feet (1.5m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surface if each metal surface is permanently connected by a minimum #8 AWG copper conductor to the wire connector on the terminal box that is provided for this purpose.
- 6) **DANGER:** Risk of electrical shock. Do not permit any electrical appliance, such as light, telephone, radio or television within 5ft. (1.5m) of spa.
- 7) **WARNING:** To reduce the risk of injury:
 - The water temperature in a spa should never exceed 104°F (39C). A water temperature of 104°F (39C) is considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.
 - Since excessive water temperatures have a high potential for causing fetal injury during the early months of pregnancy, pregnant or possibly pregnant women should consult their physician before use.
 - Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature regulating devices varies.
 - The use of alcohol or medications before or during spa use may lead to unconsciousness with the possibility of drowning.
 - Children should be supervised at all times.

IMPORTANT SAFETY INSTRUCTIONS

- Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.
 - Persons using medication should consult a physician before using a spa since some medication may affect heart rate, blood pressure, and circulation.
- 8) The causes, symptoms and effects of hyperthermia may be described as follows:
Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal temperature of 98.6 degrees F. (37C)
The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness and fainting. The effects of hyperthermia include:
- Failure to feel heat
 - Failure to recognize the need to exit the spa
 - Unawareness of impending hazards
 - Fetal injury in pregnant women
 - Physical inability to exit the spa or hot tub
 - Unconsciousness resulting in the potential of drowning.
- 9) Never touch or come in contact with any electrical accessory when in your spa or when your body is wet.
- 10) Prior to performing any service to the Spa Pack, turn off ALL power to the system at the main power source breaker.
- 11) Never turn equipment pack on unless spa is filled with water 2" above the skimmer.

CAUTION!

CAUTION: Each persons body and circulatory system has different tolerances and responds differently to warm/hot water immersion. Most people in good health find a water temperature of about 102oF (39C) to be satisfying and limit time in water at this temperature to 20-30 minutes. Use of alcoholic beverages and certain medications may affect the way your body's system reacts to warm water/hot immersion.

CONSULT YOUR PHYSICIAN FOR RECOMMENDATIONS.

BASIC INFORMATION

Congratulations on the purchase of your new spa. Our goal is to provide you with a warm and relaxing spa which incorporates a soothing water massage. In order to maximize the pleasure of your spa, you will need to understand how it works.

The following operating and maintenance instructions are very important and must be followed carefully. With proper care and maintenance your spa will provide you with years of satisfaction with minimum effort.

- The pump and heater should be operated a minimum of two hours per day for cleaning and heating.
- The length of time required to heat your spa to the desired water temperature will vary, depending on the air temperature, season, and wind velocity. We highly recommend using a vinyl hard cover to minimize heat loss and to protect your spa when not in use. Covers are available from your local Spa dealer.
- The replaceable filter cartridge is trouble free and easy to clean. A routine cleaning is the best practice. Make sure the pump is off, then remove the cartridge. Wash it off using a water hose with a pressure nozzle and then reassemble. This should be done on a monthly basis.
- Keep the spa water level 2" above the skimmer. Never allow the water level to drop below the bottom of the skimmer opening. If the water level is too low, the skimmer will allow air into the water lines of the pump, causing it to lose its prime (waterflow). Running the pump without water flow will damage the pump seal assembly and could possibly result in further equipment damage, which will not be covered under warranty.
- If your spa has a natural wood skirt or if you purchased a gazebo, we recommend applying a wood sealer of your choice (always follow application instructions) to protect the finish. Repeat as directions suggest.
- You should clean your spa at least every 3-4 months. Drain the spa water and use a gentle liquid cleanser. DO NOT use hard brushes or abrasive cleaners. Fill with regular tap water and chemically treat the water for a clean and healthy spa.

CAUTION!

CAUTION: Cover must be kept on spa at all times when spa is drained or winterized. Direct exposure to sunlight can damage plastic parts and interior surface, jets, or any interior components. Damage caused by exposure to the sun will not be covered under warranty.

WARNING!

Do not use soft water. It may harm your acrylic.

SET-UP & DELIVERY GUIDELINES

Getting Ready For Delivery & Set-up Of Your New Spa

Surface And Pad Requirements

- Your new portable spa must be placed on a uniformly firm, flat, and level surface. A concrete pad 3 inches thick is best.
- If your spa is located near sprinklers, adjust or cap them so they do not hit the siding of the spa.

Balconies And Deck Requirements

- Decking must be constructed to support 85 pounds per square foot.
- Balconies must be constructed to meet current state and local codes.
- Gates must be self-closing and self-latching.

Access & Clearance

- Your spa requires 45" of clearance through gates between house and side fences, and up to 8.5' overhead clearance depending on the size of the unit.
- The clearance required to turn a corner can be equal to the length of the spa.
- All debris blocking access to the job site must be removed prior to delivery. Any trimming of trees or bushes, removal of debris, leveling of ground or other general maintenance must be done prior to delivery and is the responsibility of the customer.



Decking must be constructed to support 85 pounds per sq. ft.

SET-UP & DELIVERY GUIDELINES

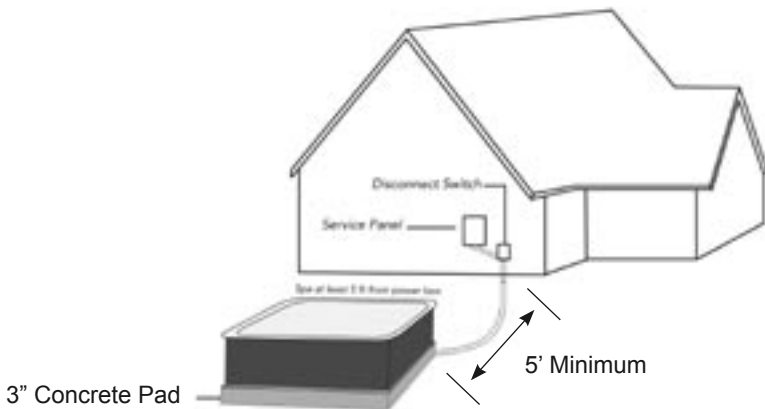
Getting Ready For Delivery & Set-up Of Your New Spa

Electrical Requirements

- Your 220 Volt spa pack will require a double pole 50 amp dedicated GFCI, ground fault circuit breaker.
- Extension cords are not to be used in conjunction with operation of the spa. Low voltage damage could result, which is not covered by warranty.
- If you have any doubts, have your electrical system checked by a licensed electrician.

NOTE

It is the customer's responsibility to acquire necessary permits and to arrange for installation and hook up of the electrical power by a licensed electrician.



WIRING DIAGRAM

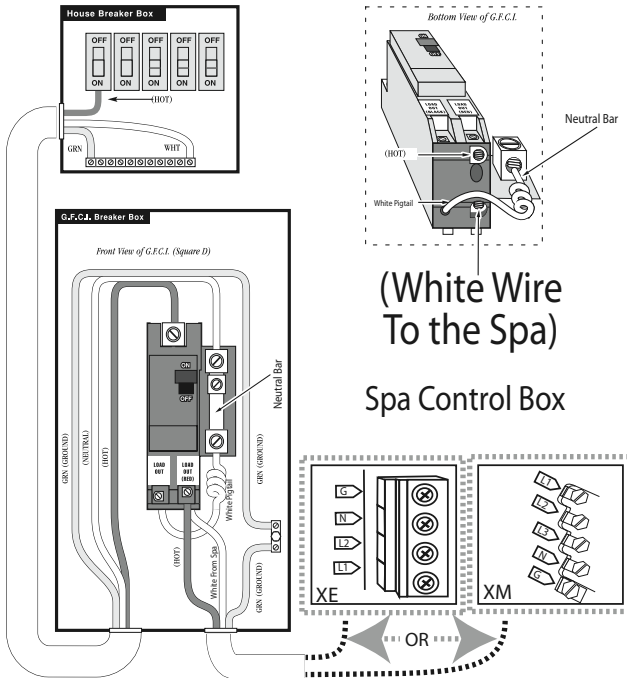
Wiring Requirements

- The bonding wire at least No. 8 AWG copper wire.
- Pull Copper current carrying conductors (one each: black, red, white, green), Use either No. 6 AWG 60o C, 8 AWG 75o C, or No. 8 AWG 90o C wire, if spa is 50 feet or less away from its power supply. Note: the ground must be equal to or larger than the largest power conductor.
- **(50Hz, 240 Volts, 1 Phase)**

Factory Recommended G.F.C.I. Load Center Wiring

Note: The white neutral wire from the back of the GFCI MUST be connected to an incoming line neutral. The internal mechanism of the GFCI requires this neutral connection. The GFCI will not work without it.

(A disconnect must be incorporate within the fixed wires)



Appliances is to be supplied through a residential current device (RCD) having a rated residual operating current not exceeding 30 mA

⚠ NOTE!

Note: Connection order may vary by pack model, please refer to equipment pack panel for proper connection order.

GENERAL PRE-OPERATION INSTRUCTIONS

Priming Pump For Electric Packs

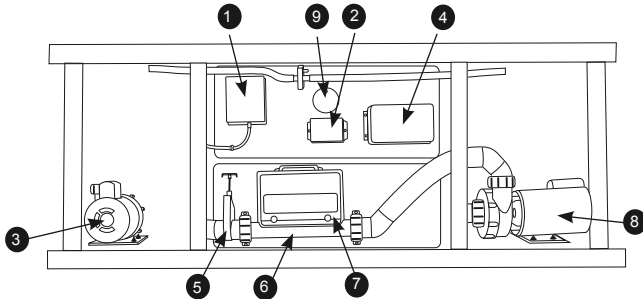
The Power pack system is located under the skirting. The equipment can be serviced by simply removing the door. The door is located on the side of the spa where three panels are located, usually on the side of the spa with the lounge, or the side where the topside control panel is located.

It is important to make sure that all of the air is out of the pump(s) before operating. To do this follow procedures below:

- Turn off power at the breaker
- Make sure the gate valves are open
- Fill the spa with water going thru the filter
- Turn the power on at the breaker
- Start the pump on low speed and water should start circulating within one to two minutes. If water does not start circulating, turn pump from low to high until prime is picked up.
- If pump still does not prime, please see "Trouble Shooting Guide" located in the back of this manual

⚠ NOTE!

Note: Equipment style and location will vary by model



- | | |
|-----------------------------|---------------------------------------|
| 1 Ozonator | 5 Gate Valve |
| 2 LED Controller | 6 Flow Thru Heater |
| 3 2nd High Performance Pump | 7 Equipment Pack |
| 4 Power Supply | 8 Dual Speed High Performance Pump |
| | 9 Light Access / Service Contact Info |

Set thermostat, located on top side control panel, to desired temperature and continue heating until desired temperature has been reached. Depending on equipment, this will normally take 8 to 10 hours.

⚠ WARNING!

WARNING: Do not run spa with gate valves closed or run pump with no water circulating in spa for long periods. This could damage the spa equipment.

CONTROLS AND VALVES

Air Control

Each spa is equipped with air controls (venturies). The purpose of these controls is to regulate the mixture of air and water that flows through the jets. If an optional blower is installed, air is also pushed through the air controls (venturies) for maximum output. If your spa has a master massage jet located in the foot well, the spa will be equipped with an air control specifically for the master massage jet. This third control operates the same as the others. Colors/style may vary from drawing. An Air Control is the smallest of the valve controls.



Mini Diverter Valve

This valve controls the water flow of neck jets, shoulder jets, and waterfalls (if so equipped) located throughout the spa. A simple clockwise turn of the handle will increase to the maximum output allowed. Another turn in the opposite direction will decrease / turn off the jet. Colors/style may vary from drawing. A Mini Diverter Valve is the medium size of the valve controls.



Water Diverter Valve

The Water Diverter Valve controls the output of the pump(s) water flow to either side of the spa, or it will provide even water flow to all jets if left in the half way position. The purpose of this valve is to increase or decrease the output of one side or another for maximum or minimum water flow in case of one or two person usage. This valve is also used to turn the master massage jet on and off, if so equipped. Colors/style may vary from drawing. A Water Diverter Valve is the largest of the valve controls.



Although all three controls look similar in appearance, they are easily discernable by size. The Air Control is the smallest, the Mini Diverter Valve is medium in size, and the Water Diverter Valve is the largest .



*A Mini Diverter Valve, an Air Control, and a Water Diverter Valve.
Locations will vary on each spa model.*

OTHER GENERAL CONTROLS

Individual Jet Operation

Individual jets can be turned on and off. This is done by simply turning the outer jet housing. Turning clockwise will turn the jet on, and turning counterclockwise will turn the jet off. Individual jet control can be done independently from normal diverter valve settings.

Waterfall Control

All spas are equipped with waterfalls, they are controlled with a Mini Diverter Valve. Turning the Mini Diverter Valve full clockwise will turn the waterfall on full power, while turning full counterclockwise will turn the waterfall off.

Lighting Control

Your spa may be equipped with lighting. If so, please refer to the “Quick Reference Card” included with your spa documentation for proper operation.

Digital Top Side Control Panel Instructions

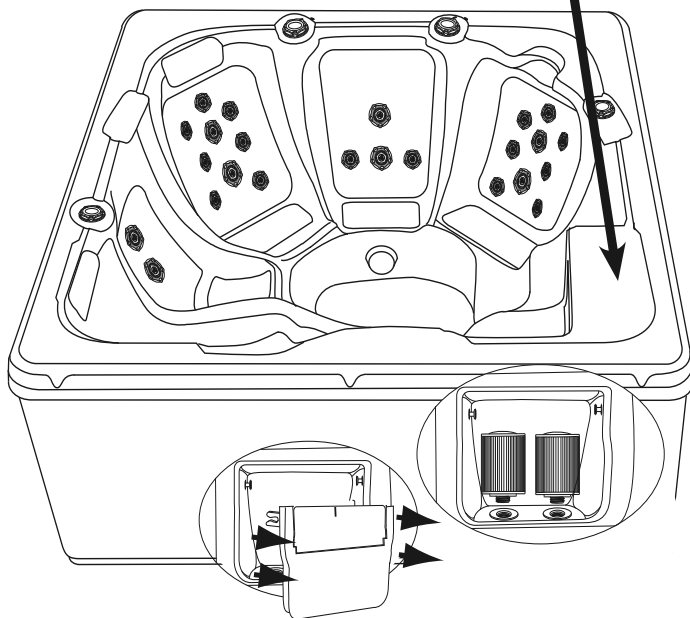
Exclusive digital top side control system. When you are ready to program your spa, please consult the “Quick Reference Card” included with your spa documentation. It has specific instructions for your particular spa’s unique features and controls.

Stereo Controls (OPTIONAL)

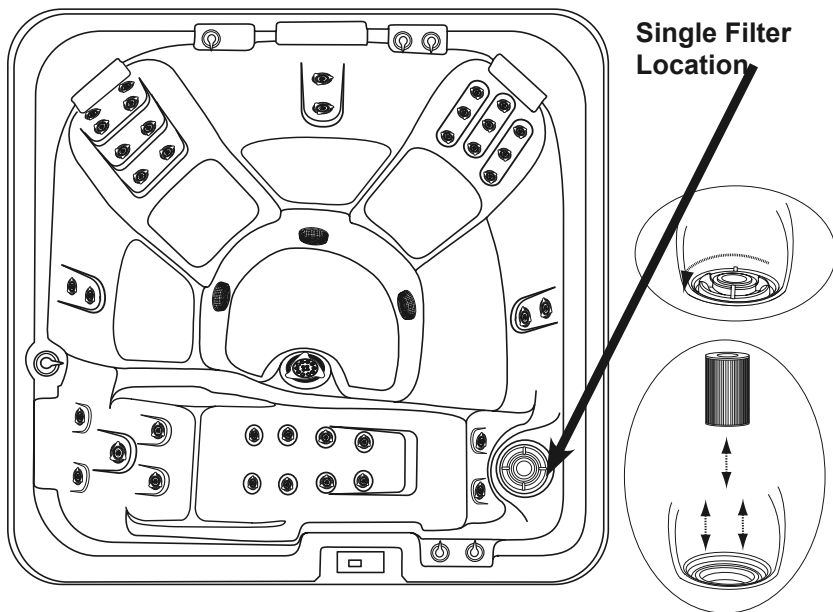
If your spa is equipped with an optional stereo system, please refer to your Stereo Owner’s Manual located inside your stereo equipment area, or included with your spa’s documentation.

FILTER LOCATION

Dual Filter Location



Single Filter Location



FILTER MAINTENANCE

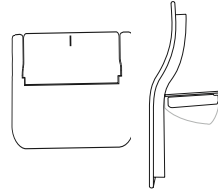
Filtration starts as soon as water flow is steady through the filter. The filter cartridge removes body oil and debris from the spa water, as they can cause flow resistance. A dirty cartridge will decrease flow and may prevent the spa from heating properly. Therefore, regular filter cleaning is essential.

Cleaning and Replacing Filter Cartridge

Your spa filter(s) have been designed for quick and easy maintenance.

Enclosed Style

- Turn off power at the breaker.
- Open filter door and expose filter cartridge(s) by pulling door toward center of spa until door opens completely.
- Unscrew filter cartridge(s) and remove.
- Clean with a garden hose equipped with a high pressure nozzle, or soak in filter cartridge cleaner if necessary, or at every other regularly scheduled cleaning. Rinse filter thoroughly before installing.
- Screw clean cartridge back into filter enclosure and return filter door to original position.



Open Style

- Turn off power at the breaker.
- Remove basket from filter canister, remove filter cartridge and clean with a garden hose equipped with a high pressure nozzle, or soak in filter cartridge cleaner if necessary or at every other regularly scheduled cleaning. Rinse filter thoroughly before installing.
- Place clean cartridge in filter canister
- Replace basket weir in filter canister.

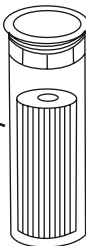
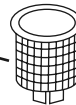
Additional telescoping weir section available with Aqua-Pure only.

Floating weir

Leaf basket

Canister

Filter inserted inside canister



NOTE!

Note: The filter should be inspected and cleaned on a monthly basis.

KEEPING YOUR SPA WATER CLEAN & FRESH

Cleaning Your Spa Water

You need to keep your spa clean and ready to use. When you enter your spa, you bring in as much contamination as 50 people would in a normal size swimming pool! Because your spa is such a small, enclosed environment, it needs to be a sanitary place. We accomplish this with a simple three step process:

- 1) Balance
- 2) Filtration
- 3) Sanitation

The water that comes from your tap at home is fine for showers or bathing, because it is drained immediately after use. In a spa, your water is used for up to three months. Hot water is a breeding ground for bacteria, so sanitizing becomes necessary, as well as maintaining a specific mineral balance. Having that mineral balance in place ensures that the water, which is naturally corrosive to metal, will not cause damage to the spa equipment. We recommend weekly water testing.

WARNING!

WARNING: Maintain water chemistry in accordance with manufacturer's instructions.

WARNING!

WARNING: Please be careful with chemicals - damage to the surface of the spa can occur due to the improper use of chemicals such as trichlor or chlorine, chemical tablets, acids or spa cleaners. Do not let undissolved chemicals lie on the surface of the spa. Damage from chemical misuse is not covered under warranty. Improper water chemistry balance can damage the spa surfaces and/or equipment, and is not covered under your warranty.

Filling Spa With Water

When filling the spa, use 2 ounces of SODIUM BROMIDE to create a bromide reserve. When using BROMINATING TABLETS in a floating dispenser, two to three tablets will treat up to 500 gallons of water. For a chlorine system, use CHLORINATING GRANULES (1/2 oz. per 500 gallons).

KEEPING YOUR SPA WATER CLEAN & FRESH

Once the spa has been filled to the correct level and pumps are primed and running add:

- 1) **STAIN & SCALE REMOVER**- This prevents staining, rust and corrosion, caused by metals in the source water. One bottle will treat up to 500 gallons for up to 3 months.
- 2) **CALCIUM BOOSTER (If Needed)** - Calcium booster treats the water if low calcium hardness is a problem in your area. It will help prevent equipment corrosion and foaming by raising the spa's water hardness level to an acceptable range of 120 ppm.
- 3) **pH STABILIZER** - It will properly adjust and hold the pH for up to 3 months.

Water Testing

Your Spa Dealer is equipped to perform a thorough analysis of your spa water. Take a one liter sample to the store and they will advise you on the products necessary to properly balance and care for your spa. Unbalanced spa water can quickly damage your equipment. Your Spa Dealer will advise you on how to protect your investment.

Balance

Spa water must have the correct chemical balance. Unbalanced water can irritate eyes, corrode the equipment, leave mineral deposits, and decrease the effectiveness of the sanitizer.

Balanced water means establishing proper balance among Total Alkalinity, pH, Calcium Hardness and Total dissolved solids.

**APPLIANCES SHALL NOT BE CLEANED WITH
WATER JET**

KEEPING YOUR SPA WATER CLEAN & FRESH

(An Overview)

Monthly - For Equipment Protection

CALCIUM BOOSTER (If Needed) - Calcium booster treats the water if low calcium hardness is a problem in your area. It will help prevent equipment corrosion and foaming by raising the spa's water hardness level to an acceptable range of 120 ppm.

Filter Cleaning

Keep your filter free of grease, grime, and oil. Clean the filter with SPA CARTRIDGE FILTER CLEAN. One 16 oz. bottle treats a 55 square foot filter. See Filter Maintenance section for location and diagram.

As Needed

Surface Cleaning

Between refills and as needed, clean the surface using SPA MULTI-PURPOSE CLEANER. For tough scale & stains, use STAIN & SCALE REMOVER.

Surface Protection

To protect and seal the spa surface, use SPA FAST GLOSS every time you drain and clean the spa.

Water Balance

Adjust the pH quickly and easily with pH STABILIZER. It will properly adjust and hold the pH for up to 3 months. Note: Not recommended for calcium hardness levels above 200 ppm. Use SPA UP to raise pH and SPA DOWN to lower pH.

Sanitizing

Use 2 ounces of SODIUM BROMIDE to create a bromide reserve. When using BROMINATING TABLETS in a floating basket, two to three tablets will treat up to 500 gallons of water. For a chlorine system, use CHLORINATING GRANULES (1/2 oz. per 500 gallons).

KEEPING YOUR SPA WATER CLEAN & FRESH

Mineral Protection

STAIN & SCALE REMOVER - This prevents staining, rust and corrosion, caused by metals in the source water. One bottle will treat up to 500 gallons for up to 3 months.

Foam Control

To control foaming, use **SPA FOAM DOWN**. For added convenience, use just 3 drops of **SPA FOAM DOWN CONCENTRATE**.

Skin Conditioning

To prevent dry skin, pour **SKIN SOFTENER** directly into the spa. It soothes and moisturizes.

Algae Control

For spas with green or yellow algae, use **SPA ALGAECIDE** to kill and prevent further algae growth.

WARNING!

Do not leave your water treatment products outside. If subjected to extreme heat or cold, their effectiveness can be impaired.

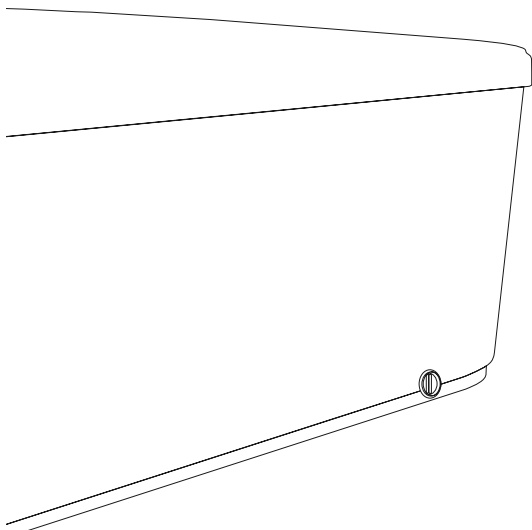
KEEP ALL CHEMICALS OUT OF THE REACH OF CHILDREN!

DRAINING YOUR SPA

Because your spa holds a relatively small amount of water, contaminant's such as body oil, perspiration, dirt, hair, etc., may become quite concentrated. For this reason, the water should be drained and replaced every three months depending on use.

- Turn off power at the breaker.
- Hook up a garden hose to the hose bib located on the exterior drain of the cabinet to access the hose bib, please pull the cap out and turn counter clock wise to remove the cap, attach hose to the drain.
- When water begins to drain out of the hose, be sure to drain the water to a convenient place.

After draining is completed, turn the hose bib off by pushing in and turn clockwise one half turn. Remove the hose. Wipe down the inside of your spa making sure your surface is dry and free from standing water. We recommend that after draining or cleaning your spa that you put the cover back on. Avoid exposing the acrylic surface to direct sunlight for an extended period of time. Extended exposure can cause surface fading or cracking, which could void the acrylic warranty.



⚠ NOTE!

Note: Be sure that hose is on a downward grade to properly drain spa.

WINTERIZING YOUR SPA

WARNING!

In areas of the country where the temperatures drop below 32° F, (0C) it is important to follow these directions:

When winterizing the spa, we recommend putting RV Antifreeze in the spa and running it before draining the spa.

- 1) If the spa is not going to be used, drain completely. Be sure all water is removed. Break or loosen unions at each end of pump to ensure water from pump area is removed. Remove pump freeze plugs if so equipped. Using a shop vacuum, vacuum all jets thoroughly to remove any water left over in the plumbing lines.
- 2) Do not turn unit off with water in the spa. Frozen water may rupture plumbing. Freeze damage repairs are not covered under warranty.
- 3) Remove and clean filter cartridge. Store cartridge in a secure place to prevent freezing. If the spa is going to be used, maintain normal operating procedures and ensure cover is in place when possible.

NOTE!

Note: Freeze ups or damage caused by freezing are not covered under warranty!

MAINTAINING YOUR SPA COVER

Proper Maintenance For Your Spa Cover

- 1) Use a soft broom to remove accumulation after every snowfall or ice storm.
- 2) Splash cool tap water on the hardware to free them if they become frozen shut. Household lubricating oil will keep the lock free, but apply carefully because it can damage the cabinet finish.
- 3) We recommend a good treatment with Vinyl Conditioner before the first snow or ice. If possible, treat during the winter too.
- 4) Monitor your water chemistry. Even if the spa is not used regularly, improper water chemistry can cause a mildew build-up on the cover. Clean, PH controlled water will prolong the life of the cover.
- 5) If mildew is found, remove foam cores from the vinyl encasement. Mix water, a teaspoon of mild dish washing soap and a cup of bleach. With a soft bristle brush, scrub the inside and outside of the vinyl encasement thoroughly. Then take a washcloth and wipe down each foam core, rinse thoroughly. Place the encasement in the sun and foam cores in the shade to dry. Once everything is thoroughly dry, spray the cores and encasement with a mildew inhibitor. Allow to dry completely, then reassemble. The key here, of course, is to maintain proper water chemistry to avoid mildew.
- 6) We suggest rotating the cover every six months to maintain even wear. Unzip the cover, remove the foam cores, turn over and reassemble.

Ask Your Dealer About Using A Cover Caddy

PROTECT YOUR COVER!

TROUBLE SHOOTING GUIDE

No heat or heat too low

- Probable Cause #1 Dirty Filter.
Action Remove filter cartridge and clean.
- Probable Cause #2 Breaker at house off.
Action Reset breaker at house. Breaker can appear to be on and one pole can be off. Turn breaker OFF then ON twice.
- Probable Cause #3 Pump not primed.
Action Refer to the section of this manual on pump priming.
- Probable Cause #4 Improper line voltage.
Action Have a Licensed Electrician check the line voltage.

Spa Lights won't come on

- Probable Cause #1 Light bulb burned out.
Action Replace bulb (non-warranty).
- Probable Cause #2 Dirty connection.
Action Check to see if there is anything covering the connection on the housing that holds the light bulb.

Pump will not prime

- Probable Cause #1 No water in pump.
Action Make sure water level in spa is correct.
- Probable Cause #2 Closed gate valves or blocked lines.
Action Open all gate valves. Check suction for blockage.
- Probable Cause #3 Pump surges, jets lose and gain power, loose union or drain plug.
Action Check union on front or nose of pump to ensure tightness. Check drain plugs to ensure tightness.

Jet(s) won't come on

- Probable Cause #1 Pump not primed.
Action Refer to the section of this manual on pump priming.
- Probable Cause #2 Gates valves closed.
Action Check to see if gate valves are in the correct position. Check to see that pump is plugged in.
- Probable Cause #3 Water Diverter Valve not adjusted correctly.
Action Turn Water Diverter Valve until desired water flow is obtained.
- Probably Cause #4 Individual jet is closed.
Action Turn the outer jet housing clockwise to turn jet on.

Low water flow

- Probable Cause #1 Dirty Filter.
Action Remove filter cartridge and clean.
- Probable Cause #2 Closed gate valves or blocked lines.
Action Open all gate valves.
- Probable Cause #3 Low voltage or incorrect voltage.
Action Have a Licensed Electrician check the line voltage.

TROUBLE SHOOTING GUIDE (CONT.)

Spa is leaking

Probable Cause #1 Loose connection.

Action Hand tighten all disconnects and fittings.
Check joints and unions.

Motor does not run

Probable Cause #1 No power to motor.

Action Check power switches and circuit breakers.
Check motor plug where plugged into control box.

Probable Cause #2 Pump jammed from foreign matter in impeller.

Action Call dealer for recommended action.

Probable Cause #3 Motor overheats on hot days while filtering.

Action Reprogram your controls to cycle during the
coolest parts of the day and on shorter cycles.
(see programming instructions).

Motor runs hot

Probable Cause #1 Pump ran dry.

Action Call dealer for recommended action.

Probable Cause #2 Restricted suction lines.

Action Make sure all valves are open/clear suction of debris.

Probable Cause #3 Improper ventilation

Action Insure that vents on side of spa are free and clear
of any debris or landscaping. Spa should also be
located an adequate distance from any walls or
fencing for good ventilation.



NOTE!

Note: These motors will feel hot to the touch. This is normal. The Overheat Sensor will turn the motor off if there is an overload or high temperature problem.

GLOSSARY OF TERMS

- Air Control or Venturi Mounted on the lip of the spa or at the equipment shroud, to induce air to the jets.
- Cabinet The natural or synthetic wood panels that surround the spa, also called a skirt.
- Control Panel..... Mounted on the lip of the spa, the digital panel that controls the spa's functions.
- Control Box..... Basically the brain of the spa. Distributes power to all functions of the spa, pumps, ozonator, heater, fiber optics, etc.
- Drain The fitting set into the footwell that drains water from the spa.
- Filter..... The filter cleans the spa, removes particles and debris, and protects the equipment from foreign substances.
- Footwell The bottom of a spa where you place your feet. SPA SPAS is known for it's larger foot wells and comfortable seating.
- G.F.C.I. Breaker..... The electronic switch installed in the power box of your house to give power to the spa. This is a non-user serviceable part.
- Gate Valves T-handled valves located at the inlets and outlets of the equipment. The gate valve blocks or opens the water line by the equipment.
- Heater..... The thermostatically controlled heater raises the temperature of the water to the desired degree. This is located under the control box in the equipment area.
- Hose Bib..... Used in the draining of the spa, fits a standard garden hose.
- Jets The fittings on your spa that direct the flow of water for massaging action.

GLOSSARY OF TERMS

- Ozone A water purification supplement method using Ozone gas. Ozone gas, made by an Ozone Generator unit, can reduce your sanitizer needs by up to 25%.
- pH Stands for "Potential for Hydrogen" This is the term used to describe the acid (low pH) or alkaline (high pH) condition of the water. The ideal pH for spa water is 7.5.

NOTES

Limited Warranty Summary

Please refer to the Warranty Card included with your product for complete warranty information. In order to receive prompt warranty service, you must register your spa - ask your dealer about registering. The Manufacturer provides a limited warranty to our customers. It applies to the spa structure, surface, plumbing, pumps, heater, blower, and controls. The limited warranty does not cover damage resulting from improper maintenance, improper installation, misuse, abuse, accident, fire, normal wear and tear, or improper water maintenance. Unauthorized modifications of the spa may void the warranty. Replacement costs associated with transportation, removal, and reinstallation are the sole responsibility of the spa owner.

The Manufacturer reserves the right to make changes in design or material of its products at any time without incurring liability. This limited warranty applies to the first retail purchaser and terminates upon any transfer of ownership.

Disclaimer:

The information in this manual is accurate to the best of The Manufacturer knowledge. However, The Manufacturer assumes no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from use of the information contained herein.

Safety Sign

The safety sign enclosed with your Owner's Manual packet should be permanently installed where visible to all users of the spa. It is very important that you, as a spa owner, review the important safety instructions and warnings before you operate your spa. It is equally important that you instruct all users, even occasional ones, as to the warnings associated with spa use. You may obtain additional signs by contacting:

Spa Service Dept.
1815 Milton Rd
Athens, TN 37303
866-497-0994

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